

Cache Management System Providing Improved Page Latching Methodology

Abstract

A cache management system providing improved page latching methodology is described. In one embodiment, for example, a method is described for providing access to data in a multi-threaded computing system, the method comprises steps of: providing a cache containing pages of data in memory of the multi-threaded computing system; associating a latch with each page in the cache to regulate access to the page, the latch allowing multiple threads to share access to the page for read operations and a single thread to obtain exclusive access to the page for write operations; in response to a request from a first thread to read a particular page, determining whether the particular page is in the cache without blocking access by other threads to pages in the cache; if the particular page is in the cache, attempting to obtain the latch for purposes of reading the particular page; and allowing the first thread to read the particular page unless a second thread has latched the particular page on an exclusive basis.